

II. Land Use

LAND USE VISION

In 2035 St. Croix County values its historic roots in farming and other natural resource based activities and desires to maintain its rural character or feel. We have achieved a rural feel by ensuring that there are ample amounts of open space between cities and/or villages, by encouraging commercial and industrial development to locate within or adjacent to cities and villages and limiting subdivision development outside of city and village limits. The open space is a mix of farming and natural resources including parks, trails, natural areas, river ways, hunting land, woods and wetlands. In addition, historic barns have been preserved and restored as part of the open views. The western side of the county has taken a different approach to open space and housing than the eastern side which has seen less pressure from development.

INTRODUCTION

Land use is a critical factor in managing the future growth of St. Croix County. Land use trends indicate what changes are occurring regarding type, location, and intensity of uses over time. It is these land use changes that should be managed in a manner that is beneficial to the residents and environment of St. Croix County.

Perhaps the most noticeable changes in St. Croix County over the past three decades were land use changes in and around cities and villages and the development of rural subdivisions. The rural land use changes were mostly from agricultural land to residential land, but also included some commercial and a few instances of industrial development. Regardless of its location in the County, the majority of the new development followed a different land use pattern than was prevalent over the last 100 years. The development since 1980 consisted of large lot rural subdivisions and larger urban lots creating lower density levels in both rural and urban areas. Proximity and connection to the interstate system around the Minneapolis-St. Paul metro area provided new residents, who moved to St. Croix County to take advantage of reasonably-priced homesites, with quick, easy access to employment, shopping and recreation. As the residential numbers increased, commercial and industrial development activity expanded proportionately.

The growth and accompanying land use changes were greatest in the western side of the county and along the I-94 corridor illustrating the influence of the Twin Cities and the transportation system. The growing population required new and expanded roads, municipal sewer and water systems, and new schools.

EXISTING LAND USE & LAND USE TRENDS

The land use acreage statistics for this plan were derived from local assessment data collected by local assessors and compiled by the Wisconsin Department of Revenue. These data are the most consistent data on land use acreage for communities (cities, villages and towns) in St. Croix County. The classifications are: residential, commercial, industrial (manufacturing), agricultural, forest, undeveloped (vacant), and other.

While agriculture remains the predominant land use in the County, Figure 11.1 shows that it has declined 102,000 acres or 28% between 1987 and 2010. While significant this can also be misleading due to changes in the state definition of agricultural assessment. From 1994 to 2009 there have been significant changes in how property is assessed in Wisconsin. Use value

FIGURE 11.1 ST. CROIX COUNTY LAND USE – 1987, 1997, 2007 & 2010

ASSESSMENT CLASS	1987 ACRES ASSESSED	1997 ACRES ASSESSED	2007 ACRES ASSESSED	2010 ACRES ASSESSED	'87-'10% CHANGE	'97-'10% CHANGE
Agricultural	355,654	320,494	257,677	252,768	-28%	-21%
Forest	37,086	48,319	50,915	51,798	39%	7%
Undeveloped	4,597	4,702	37,854	40,012	770%	751%
Residential	22,112	35,300	52,646	53,462	141%	52%
Commercial	2,273	3,529	5,059	5,548	144%	57%
Manufacturing	839	1,072	1,369	1,396	66%	30%
Other	0	3,569	3,227	3,233	--	-9%
Total	422,561	416,995	408,747	408,217	-3%	-2%

source: Wi Department of Revenue

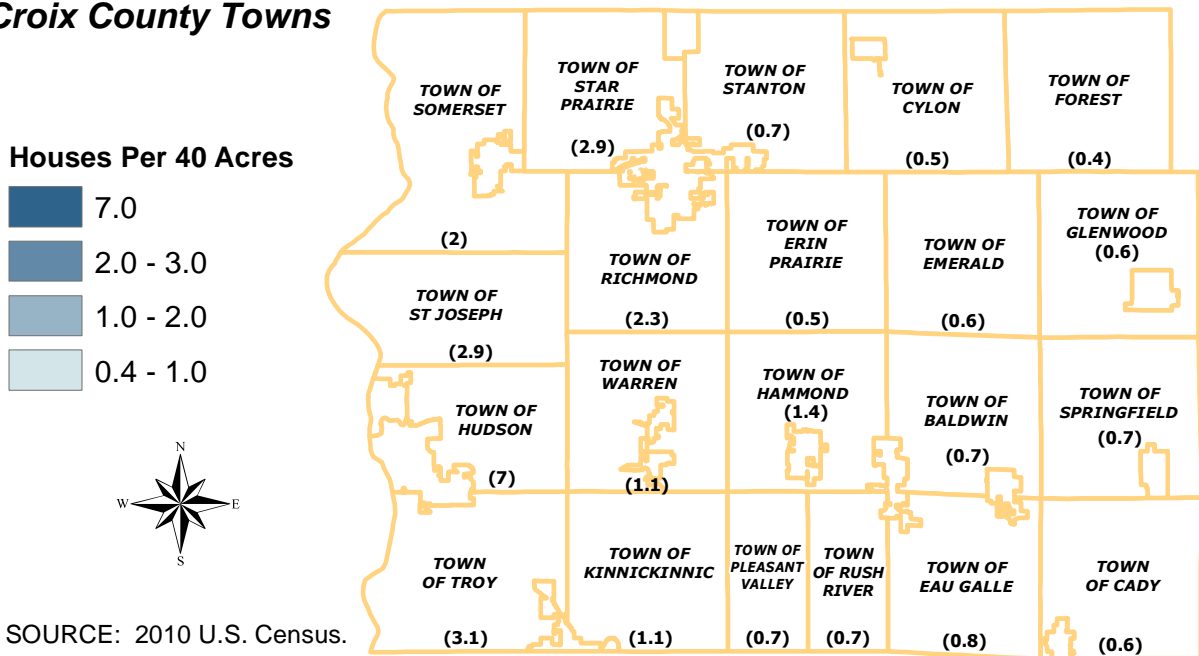
assessment, which was implemented between 1996 and 2000, shifted land uses from the agricultural assessment classification to four new or renamed classifications. These included undeveloped (which was formerly swamp and waste), ag forest, ag buildings and sites and other. Undeveloped land includes areas commonly called marshes, wetlands, thickets, bogs, wet meadows or ponds. This class also includes road right-of-way, depleted gravel pits and land that may be forested, but because of soil or site conditions, is not producing or capable of producing commercial forest products. As an example, the undeveloped category increased 36,000 acres from 1987 to 2010; much of this land was previously assessed as agriculture.

Another way to examine how land use and the landscape have changed is to look at the changes in residential, commercial, and industrial acres. Figure 11.1 shows the increase in the total acreage of residential, commercial and industrial acres in St. Croix County from 1987 to 2010. The County has experienced a 140 percent increase in the total of these three land use types. This increase is equivalent to 55 square miles of growth in the County. In 1987, residential, commercial and industrial land uses accounted for 6% of the assessed land in the County by 2010 the percentage had increased to 15%.

Although there seems to be a significant decrease in the amount of land in the agricultural real estate classification from 1987 to 2010, the actual amount was less because of the changes in how property is assessed. In 1987 Agriculture was 84% of the total assessed acreage. By 2010 Agriculture makes up 62% of the land use. But if you increase the agricultural acres by 35,000 which is the amount undeveloped increased between 1987 and 2010 agriculture plus undeveloped makes up 70% of the total land use, while residential increased from 6% of the total to 13% of the total.

Housing Density

**Housing Units Per 40 Acres - 2010
St. Croix County Towns**



Housing units per 40 acres is one way to measure the density of residential development for towns within St Croix County. Higher density in the west and along the I94 corridor indicates the influence of the Twin Cities on housing and residential development. The east half of the county with lower housing density is more rural with greater tracts of agricultural land. The municipal areas were not included in this map because the county does not regulate lots size or housing within the villages and cities. The density or number of houses on the landscape contributes to the rural feel of St. Croix County and can be a contributing factor to land use conflicts. The average

density in larger communities, such as Hudson, New Richmond and River Falls is 38 housing units per 40 acres, with the City of Hudson at 54 units per 40 acres. The average density in smaller communities, such as the Glenwood City, Baldwin, Roberts and Somerset is 24 units per 40 acres. Please see Figure 11.2 for more detail.

FIGURE 11.2 -- VILLAGE OR CITY	HOUSING UNITS/40 ACRES
Cities	
Glenwood City	14
Hudson	54
New Richmond	25
River Falls	36
Villages	
Baldwin	37
Deer Park	8
Hammond	22
North Hudson	62
Roberts	20
Somerset	25
Star Prairie	7
Woodville	20
Wilson	3

source: St. Croix County

Public Land

There are significant natural resource and park lands in St. Croix County owned by the U.S. Fish and Wildlife Service, the National Park Service, the Wisconsin Department of Natural Resources, or St. Croix County. Figure 11.3 shows the acres of these lands by town. Figure 8.1 of the Natural Resources Element of this plan provides a map of the location of these lands. These areas are managed as open space to provide important feeding, breeding, nesting, cover, and other habitat values to a wide variety of plant and animal species. Much of this land, not in state or county parks, is open to the public for hunting, fishing, environmental education and interpretation, wildlife observation and wildlife photography.

FIGURE 11.3 -- PUBLIC NATURAL RESOURCE LANDS, 2005

TOWN	ACRES	TOWN	ACRES
Cylon	3,226	Star Prairie	633
Stanton	2,746	Kinnickinnic	467
Somerset	2,429	Emerald	160
St. Joseph	1,667	Rush River	125
Hudson	1,530	Pleasant Valley	120
Warren	1,427	Baldwin	40
Erin Prairie	1,172	Glenwood	38
Richmond	1,066	Hammond	26
Springfield	666		

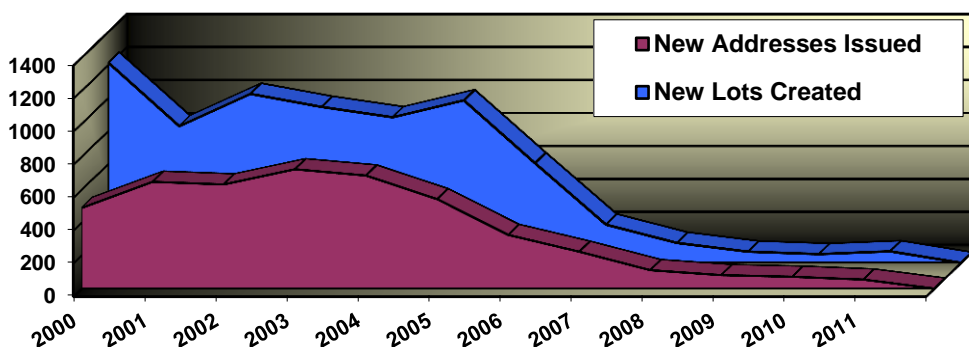
Source: St. Croix County

Land Supply & Prices

From Figure 11.1 above, in year 2010, there were 408,217 acres of assessed land in St. Croix County. Agriculture, forest, and undeveloped land total 344,587 acres of open land or 84% of the land total in St. Croix County. While all of this land is not available for development because of physical constraints such as slopes, poor soils, etc; much of this land is developable. For the purposes of this plan it is assumed that 250,000 acres of land are free of such limitations for development. This number does not include other factors such as local plans and zoning regulations.

The residential real estate market drives the demand for developable land in St. Croix County. The

**2000-2011 New Addresses & Lots
St. Croix County Towns**



adjacent chart shows the number of new lots platted or created each year and the number of new addresses issued for new construction each year since year 2000. Many of these lots were developed during the height of the housing boom in St. Croix County.

As the chart illustrates many more lots were platted than buildings were constructed. The number of excess lots may impact the demand for developable land for residential development.

Two indicators of a dynamic economy and potentially changing land use patterns are land sales and prices. These two indicators could mean a demand to convert land to more intensive uses

such as residential, commercial or industrial. In turn, additional community services may be needed to support this change.

An indicator of the demand for developable land is the number of land sales during the year for the county. Figures 11.4 and 11.5 depict the sales of agricultural lands and forested lands respectively. There has been a historic demand for these lands to be converted to residential and

Figure 11.4 Agricultural Land Sales • 1998 – 2011 St. Croix County

Year	Agricultural land continuing in agricultural use			Agricultural land converted to other uses		
	Number of transactions	Acres Sold	Avg. \$/acre	Number of transactions	Acres Sold	Avg. \$/acre
2011	52	4,238	3,929	3	124	2,421
2010	33	1,951	4,006	2	57	4,468
2009	15	1,196	3,404	3	114	2,514
2008	27	1,749	3,500	2	142	8,926
2007	24	1,576	3,752	10	582	6,811
2006	23	1,397	7,092	14	1,133	11,157
2005	33	1,924	5,523	34	3,053	12,446
2004	31	2,082	4,802	41	2,092	8,193
2003	36	2,922	4,034	47	2,864	6,637
2002	24	1,355	2,956	44	2,732	7,929
2001	47	2,562	2,830	46	2,437	7,033
2000	49	3,924	1,903	53	2,944	5,300
1999	53	4,020	1,512	64	3,353	3,467
1998	62	6,070	1,353	47	2,647	1,847

source: USDA

other uses. The price paid is also listed. The average price paid for agricultural land that is converted to other uses is significantly higher than that for lands remaining in agriculture. The average price paid for farmland being converted to other uses peaked in 2005 at \$12,446/acre, but declined to \$2,421/acre in 2011. The number of transactions converting farmland to other uses has also declined. The sale of agricultural land remaining in agriculture has generally remained steady in the number of transactions. The price per acre has risen since the increase in corn production related to ethanol use. The trends shows that the downturn in the economy after 2005/2006 caused prices for agricultural land to decline regardless of use and since then they have both increased to the point where in 2010 agricultural land sold for a similar price regardless of use and in 2011 agricultural land sold for more than land converted to other uses.

Figure 11.5 reveals there was about 16% premium paid for forested lands intended for other uses in 1998. However, in 2001 and 2005 there was a significant difference in the price paid for forested lands being converted to other uses than that paid for lands remaining in forest use. In 2001 and 2005, there were outstanding premiums paid of 232% and 272%, respectively. This recently changed somewhat as the price for forest land being converted to other uses brought a 28 percent premium over that which remained in forest use in 2010. Forest land when converted to residential use normally demands a higher price.

FIGURE 11.5 FORESTED LAND SALES -- 1998, 2001, 2005, 2007, & 2010

Year	FORESTED LAND CONTINUING IN FOREST LAND			FORESTED LAND BEING DIVERTED TO OTHER USES			TOTAL OF ALL FORESTED LAND		
	Trans- actions	Acres Sold	Avg. \$/Acre	Trans- actions	Acres Sold	Avg. \$/Acre	Trans- actions	Acres Sold	Avg. \$/Acre
2010	21	307	2,565	5	163	3,285	26	470	2,815
2007	9	252	2,925	9	140	4,971	18	392	3,656
2005	11	158	3,881	18	404	14,430	29	562	11,464
2001	31	745	2,339	30	643	7,755	61	1,388	4,848
1998	40	567	1,430	34	1,099	1,657	74	1,666	1,580

source: USDA

In general, land prices in St. Croix County have been increasing. Demand for land for residential development has diminished, mostly likely due to high energy costs, the housing crisis, and the supply of existing residential lots.

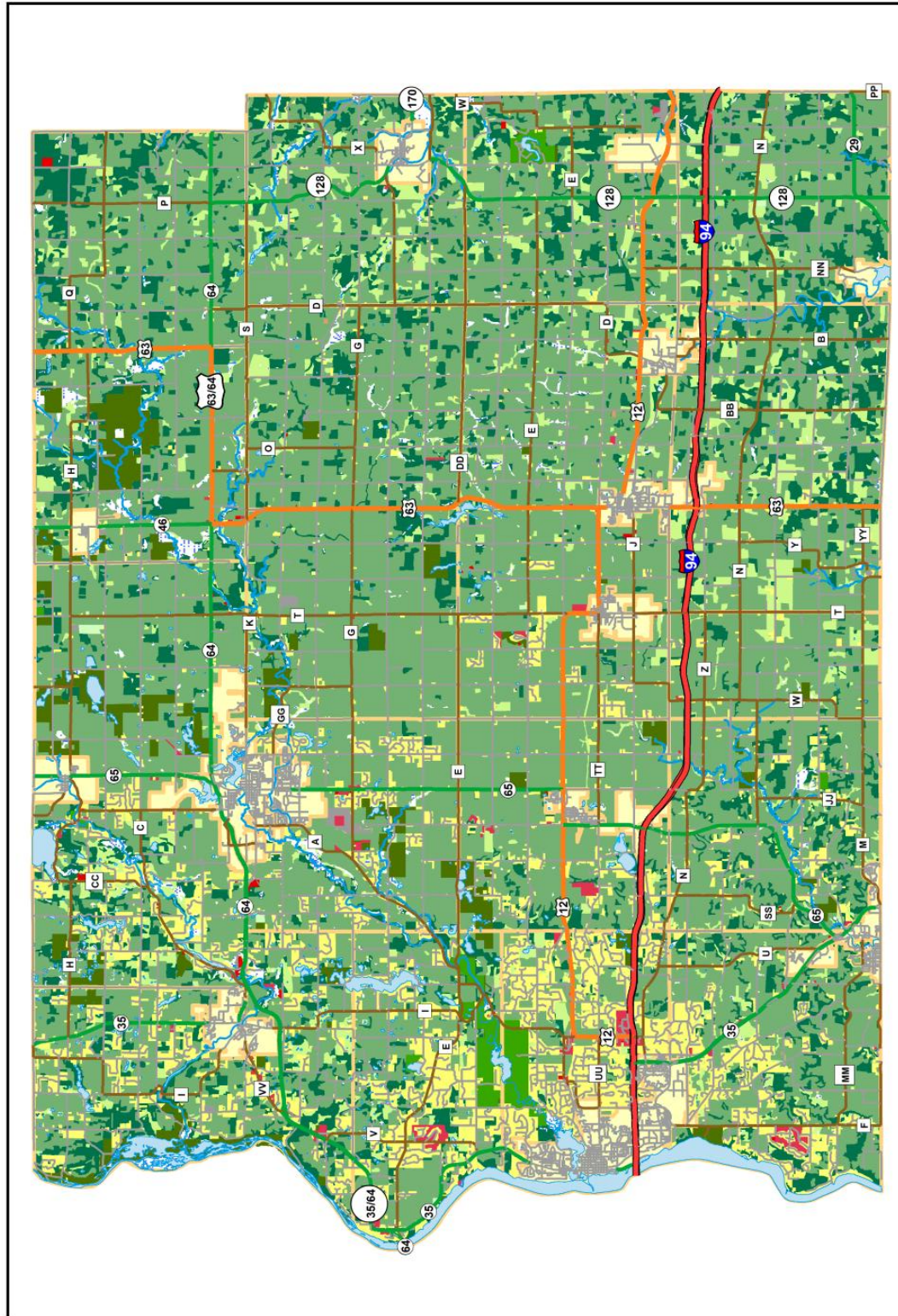
Natural Limitations to Development

The existence of some natural features in the physical environment, such as water, topography, and soil conditions, can act as constraints on development. Understanding the physical characteristics of the County can help identify areas that are more conducive to development activities and areas that may be better suited for non-development activities such as agriculture and natural resource management. [Section 8, Natural Resources](#), of this plan discusses and maps areas that have natural limitations for development, such as Figure 8.16 Floodplains, Figure 8.17 Wetlands, Figure 8.18 Steep Slopes and Figure 8.23 Primary Environmental Corridors in St. Croix County.

In a number of instances, some of these development limitations may be overcome by more extensive and costly development methods; however, development should be encouraged in areas in which it can be most accommodated and have the least impact on environmentally sensitive and valued resource areas.

Land Use Map

The existing land use map is derived from 2010 Wisconsin Regional Orthophotography Consortium photography and 2010 St. Croix County assessment data. St. Croix's County existing land use pattern is indicative of generally rural county facing growth pressure as part of the Twin Cities metropolitan area. Growth has generally occurred in the western part of the county and along the I-94 corridor.



Existing Land Use - 2010 St. Croix County, WI



Source: 2010 St. Croix County Assessment Records,
WROC 2010 Orthophotography,
St. Croix County Planning & Zoning Department.
Note: This map is for general reference and general planning
purposes only. It is not intended for detailed site planning.

SUMMARY

St. Croix County has experienced dramatic residential growth, causing changes in land use in western areas of the County and in proximity to major highway corridors. This growth can have a dramatic impact on communities. Development of productive farm or forest land can impact water resources, roads, and schools; can cause conflicts between farm and non-farm uses; and contributes to forest fragmentation.

- The most prevalent land use in St. Croix County is agriculture. In fact, almost two-thirds of the assessed land in the County is agricultural.
- Assessed residential acreage in incorporated areas, where data were available, increased by about 316% while populations increased by over 30% from 1987 to 2010. This indicates that even the incorporated communities in the County have issues with low density residential development.
- Ninety-four percent of the assessed residential acreage and 51% of the population are located in unincorporated communities. If this trend continues, it has serious implications for impacts on natural resources and productive lands, demands for services and conflicts between farm and non-farm uses in St. Croix County.
- Two-thirds of commercial lands are located in the County's unincorporated communities. However, commercial land is often much more intensively developed and contains larger buildings in incorporated communities than the commercial land in the unincorporated areas. This indicates commercial activity in cities and villages is more intensive and includes commercial uses much larger in scale than in the towns. However, scattered local-serving, resource-based and agriculturally related commercial enterprises in the rural areas serve a useful purpose. Yet, cities and villages will continue to provide more regional shopping hubs.
- Manufacturing acreage increased by 59 acres overall between 1987 and 2010 in the County's unincorporated areas; and by 498 acres in the villages and cities between 1987 and 2010. Industrial activity will continue to largely occur in the cities and villages where urban services are available; however, there are significant industrial activities in unincorporated areas, such as light fabricating and non-metallic resources extraction.
- The number of houses per 40 acres decreases to less than one unit in the eastern half of the county



- There are significant tracts of natural resources lands available in St. Croix County for open space, habitat, and nature based recreation.
- After eliminating land with physical limitations, there remains approximately 250,000 acres in St. Croix County that could be developed.
- The existing supply of residential lots, created during the "housing boom" from 2000 to 2006, is enough to supply expected demand for approximately 10 years.
- The demand and price of agricultural land converted to other uses has declined

significantly since 2006 and parallels the downturn in the economy. Since 2006 the price paid for agricultural land converted to other uses has declined by about \$6,700 per acre.

- Based on land sales from 1998 to 2010, the price of agricultural land continuing in agricultural use increased steadily until the economic decline in 2005/2006 and has since risen back to 2003 levels in response to rising agricultural commodity prices.
- The price of agricultural land converted to other uses climbed dramatically from 1998 until it peaked in 2005. Prices then declined dramatically because of the economic recession down to year 2000 levels. In 2010, the economic impacts on the price of agricultural land had reached a point where regardless of eventual use; the sale prices were essentially equal.
- In St. Croix County historical prices indicate that a premium is paid for forested land converted to residential use.
- Good agricultural land is generally good development land because the land with the least limitations agriculture also has the least limitations for development and is therefore easier to develop.

LAND USE PROJECTIONS

In accordance with State planning law, comprehensive plans must include 20-year land use projections in five-year increments. As such, this plan has a year 2035 planning horizon for land-use projections. The land-use projections for the County are based upon population projections from the Wisconsin Department of Administration. For the purpose of this section, the Plan uses the 2003 Wisconsin Department of Administration population projections. Two alternative land use projections are provided.

Scenario I – Current Trends/Status Quo

SCENARIO I - RECENT 20-YEAR DEVELOPMENT					FUTURE PROJECTIONS						
ACRES (Ac)	1990	2010	CHANGE	RATIO	2015	2020	2025	2030	2035	10 – 35 CHANGE	10 – 35 CHANGE (Sq Mi)
Population	50,251	84,345	34,094		87,967	95,202	100,806	105,806	110,806	26,461	N/A
Residential	24,144	53,462	29,318	0.860	56,577	62,798	67,617	71,917	76,216	22,754	36
Commercial	2,429	5,961	3,532	0.104	6,336	7,086	7,666	8,184	8,702	2,741	4
Industrial	863	1403	540	0.016	1,460	1,575	1,664	1,743	1,822	419	1
Agriculture	333,003	253,195	-79,808	NA	249,648	242,562	237,074	232,177	227,280	-25,915	-40

source: Wis. Department of Administration, St. Croix County Planning & Zoning.

Scenario I is based on population and land-use growth trends between 1990 and 2010. The comparison of residential, commercial, industrial, and agricultural land-use acreage to the increase in population over the time period sets the foundation for projections under the scenario. For example, for every one person increase in net population, there was a .860 increase in assessed residential acres. For each person increase in net population, the remaining land-uses changed by: commercial (+.104 acres), industrial (+.016 acres). This scenario takes what transpired between 1990 and 2010, large lot residential development, and uses that for future projections from 2015 to 2035. This scenario assumes that development to 2035 will be of similar density and land-use composition to development between 1990 and 2010. Scenario I shows that there will be a loss of over 26,000 agricultural acres, or roughly 40 square miles. This number was calculated by subtracting the increases in residential, commercial, and industrial land. These numbers do not take in account any changes to forested areas. This scenario is not consistent with policy recommendations in this plan. However, it provides a baseline for comparison and shows how the County will develop and land use will change if policies and practices remain the same.

Scenario II – Plan Implementation

Scenario II projections are consistent with the policy recommendations within this comprehensive plan. This scenario uses the average assessed lot size for each land-use category to determine what the average lot size will be for new development in 2035. Unlike Scenario I, Scenario II is under the premise that development over the next two decades will resemble what our communities look like now, on average, and not just the development between 1990 and 2010. Therefore, this scenario would include development that is denser and more compact, which is more similar to development patterns in St. Croix County prior to the 1970's. In addition, the projections are based on the decreasing average household size in the County. Using the Wisconsin Department of Administration household size projections, the average household size projections were 2015 = 2.62, 2020 = 2.60, 2025 = 2.58, 2030 = 2.54, and 2035 = 2.52. This allows the scenario to project the number of households and acres needed, based on the current average lot size, resulting in the different land use acres consumed for each five-year period.

U.S. household size has consistently been decreasing over the last few decades. At a macro level, this is a result of several variables. The most significant variables are that adults are having fewer children than they did in previous generations, especially in rural areas, and that we are aging as a society. However, looking at specific regions where household size is decreasing, this trend has either leveled off, is still very dramatic, or is decreasing slower than average. St. Croix County is an example where it is decreasing slower. This is due to two variables that compete against each other, which slows the rate of decrease in household size. As in most rural counties or counties that have rural areas, the rural areas are aging and children from those families have moved out of the house, which reduces average household size. However, over the past two decades, the County has seen significant growth from young families that have moved out of the Twin Cities Metro Area and have moved into St. Croix County. Most counties in Wisconsin do not have this trend, especially those counties with as much rural area as St. Croix County. If the migration of young families continues into St. Croix County, then the current average household size trend will continue. If the migration of young families stops, then the County will start experiencing a greater rate of reduction in their average household size.

SCENARIO II – HISTORIC DEVELOPMENT DESIGN								
ACRES (Ac)	2010	2015	2020	2025	2030	2035	10 – 35 CHANGE	10 – 35 CHANGE (Sq. Mi.)
Population	84,345	87,967	95,202	100,806	105,806	110,806	26,461	N/A
Residential Ac	53,462	55,786	60,465	64,116	67,426	70,762	17,300	27
Commercial Ac	5,961	6,220	6,742	7,149	7,518	7,890	1,929	3
Industrial Ac	1,403	1,464	1,587	1,683	1,769	1,857	454	1
Agriculture Ac	253,195	250,551	245,228	241,073	237,308	233,512	-19,683	-31

source: Wis. Department of Administration, St. Croix County Planning & Zoning.

Given the dynamics of the County (different proximities to the Twin Cities, Interstate Highway 94, new St. Croix River Crossing, and numerous small communities) that can impact all types of growth, it is extremely difficult to determine land-use projections at a county scale and where growth will occur. As such, these projections should be used with full understanding of the limitations and parameters used in their development. Again many variables can impact growth.

Residential Use Projections

Between 1990 and 2010, the County experienced a 121% increase in the amount of residential land. Much of this development was previously in agricultural land, and the average lot size increased over this period. Over the past few years, a global economic downturn has resulted in fewer building permits issued for new homes in the County. Even though this trend is softening, it is difficult to imagine that the County will experience growth like it did in the 1990s and early 2000s in the near future. Scenario I shows that if development occurs in a similar way as it did between 1990 and 2010, there will be 36 square miles more of residential land in the County by 2035. If development occurs in a way that follows local policy direction in the Plan, it is anticipated that there will be 27 more square miles of residential development. As shown on the future land use map, found in Land Use Volume 1, the anticipated location of this projected development will be mostly in the West and Northwest areas of the county as well as along the I-94 corridor.

Commercial Use Projections

Currently, there are approximately 6,000 acres that are assessed as commercial. During the past 20 years, the number of assessed commercial acres in the County increased 3,500 acres, or 145%. At the same time, average lot size of commercial parcels increased. Much of this growth has been in the urban-rural fringe areas and consists of larger lot single-use areas that are often

only accessible by car and have large parking areas. Most communities have seen developments of larger stores and/or strip malls that are located on the fringes of the community. Often this negatively impacts the economic viability and significance of a community's downtown.

There are numerous factors that will play a role in future commercial growth. This includes Interstate 94 traveling through the County, the universities and colleges located in and in close proximity to the County, expansion/decrease of the Twin Cities sphere of influence into the County, and the possibility of high-speed passenger rail service in the County. All of these variables make it difficult to project for the planning horizon. Scenario I depicts the continued type of commercial development that has been normal in the past two decades. In rural areas, much of the future commercial growth is expected to be cottage industries or home occupations. In urban areas, if energy prices continue to increase, much of the future commercial growth is expected in infill areas, where transportation prices are cheaper. This would follow the policies of the Plan and are shown in Scenario II.

Industrial Use Projections

Currently, 1,400 acres in the County are assessed as industrial, which is an increase of over 500 acres or just less than one square mile since 1990. There are no indications that this will change dramatically in the future. It is anticipated that most new industrial development will occur on the fringes of urban areas and infill areas. Policy recommendations focus on industrial reinvestment in urban infill areas. Scenario I and Scenario II have the same basic increase in industrial growth over the next 20 plus years. Unlike residential and commercial scenarios, Scenario II has a larger increase. This is due to the larger tracks of industrial land in urban areas that were developed prior to 1990 and are used in the Scenario II calculations.

Agricultural Use Projections

The loss of agricultural land is expected to continue, though it is the goal that the rate of loss be slowed and the loss of prime farmlands be significantly minimized. The decrease in agricultural acres comes directly from the increase of rural, suburban, and urban development and agricultural areas reverting to forested areas. Using data from 1990 to 2010, Scenario I shows that there will be a loss of over 26,000 acres, or roughly 40 square miles. Scenario II shows a decrease of 20,000 acres, or roughly 31 square miles. This number was calculated by subtracting the increases in residential, commercial, and industrial land. These numbers do not take in account any changes to forested areas. As can be seen, these two scenarios are significantly different. Assuming conversion of agricultural land occurs as predicted, there will be continued decreases in agricultural land over the next 20 years. This loss could be slowed by implementation of the Plan policies. This loss could be slowed further by the recent boost in the profitability of grain farming. While development pressures have temporarily subsided, the county has seen a notable change in the aggressiveness and industrialization of grain farming. With volatile grain prices that recently reached record levels, land is being converted to agricultural production aggressively. Land formerly enrolled in agricultural programs, such as forestry and conservation reserve (CRP), is changing to grain cropping. More time is needed to determine the effect of these recent trends in agricultural and land use in St. Croix County.